

TANDILOVA, K.B.

USSR/Chemical Technology. Chemical Products and Their I-9
Application - Silicates Glass. Ceramics. Binders.

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 12656

Author : Royak S.M., Myshlyayeva V.V., Tandilova K.B.
Inst : All-Union State Scientific Research Institute of Cement
Industry

Title : Sulfate Stability of Cements with Active Additions of
Volcanic Origin

Orig Pub : Tr. Gos. vses. n.-i. in-ta tsement. prom-sti, 1956,
No 9, 82-108

Abstract : A study was made of the correlations between sulfate sta-
bility of puzzuolanic Portland cements (P) containing a-
cid and basic additions of volcanic origin, and the natu-
re of the additions and their content in alumina. Con-
firmed was the correlation between amount of extraneous
admixtures, content of soluble alumina and activity of
CaO absorption, in the case of tuffs. With increase in

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USSR/Chemical Technology. Chemical Products and Their
Application - Silicates. Glass. Ceramics. Binders.

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Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 12656

extraneous admixtures and activity of additions as to CaO absorption, the content of soluble alumina increases. Additions of volcanic origin that are of a basic type did not exhibit such regularities. Studied were the processes of corrosion in 1 and 5% solutions of Na_2SO_4 (I) of P containing C_3A 13.6; 8.4 and 3.1% and of puzzuolanic P. Hardening of cements in 1% solution of I involves the formation of Ca sulfoaluminate (II), the amount of which depends on the C_3A content of the clinker, and the extent of participation of the alumina of the addition in the formation of II. Hardening of cements in 5% solution of I involves, in addition, a crystallization of gypsum. Its amount in the case of P is 17-25% CaSO_4 , after 6 months of hardening, and in the case of puzzuolanic P depends on activity and amount of additions, attaining up to 20% CaSO_4 . Investigation of the kinetics of the

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Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 12556

processes of corrosion of puzzuolanic P, based on determination of the amount of combined and free gypsum, has revealed that only 1-1.5% of the Al_2O_3 of the addition take part in the formation of II during the process of hardening over a period of 6 months. Formation of II in puzzuolanic P due to C_3A of the clinker, as well as due to the alumina of the addition, has a detrimental effect on sulfate stability of puzzuolanic P, if the ratio of CaO (mg) to the content of soluble Al_2O_3 (%) is $< 10-15$. Amount of extraneous additions, in the case of trasses and tuffs must be $> 6\%$. It is necessary to render more precise the technical specifications for active additions of volcanic origin in the production of sulfate-stable puzzuolanic P.

Card 3/3

- 110 -

TANDILOVA, K.B.; BRODSKIY, V.A.

Wall bricks made with dolomite lime. Stroi.mat. 5 no.12:27-28
D '59. (MIRA 13:3)

(Bricks) (Lime)

KUTATELADZE, K.S., doktor tekhn.nauk, prof.; TANDILOVA, K.B., kand.tekhn.
nauk

Investigating technological parameters and sands used in pro-
ducing cement-sand roofing tiles. Stroil. mat. 6 no.7:33-35 J1
'60. (MIRA 13:7)

(Tiles, Roofing) (Sand--Testing)

KUTATELADZE, K. S., prof., doktor tekhn.nauk; TANDILOVA, K. B., kand.tekhn.
nauk; SAVINSKIY, P. P., inzh.; YENUKIDZE, N. Ye., inzh.

Quick hardening slag portland cement from the Rustavi cement plant.
Nauch. soob. NIISementa no.118 ~~17-17~~ 143. (MIRA 15:2)

1. Nauchno-issledovatel'skiy institut promstroymaterialov sovnarkhoza
Gruzinskoy SSR i Rustavskiy tsementnyy zavod.
(Rustavi—Cement)

KUTATELADZE, K.S., doktor tekhn.nauk; TANDILOVA, K.B., and.tekhn.nauk;
SOSELIYA, L.D., inzh.; DZHADZHANASHVILI, O.S., inzh.; CHRDILELI,
O.G., inzh.

Increasing the activity of clinkers. TSement 30 no. 2:7-8
Mr-Apr '64. (MIRA 17:5)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut stroitel'-
nykh materialov, Tbilisi, i Rustavskiy tsementnyy zavod.

83260

9.1800

S/109/60/005/009/005/026
E140/E455

AUTHORS: Tandit, V.L. and Tartakovskiy, L.B.

TITLE: Radiation of a Reflector Antenna in the Shadow Zone

PERIODICAL: Radiotekhnika i elektronika, 1960, Vol.5, No.9,
pp.1398-1406

TEXT: The article is based on the current method of calculating reflector antenna radiations. The reflector is assumed to be ideally conducting and infinitely thin, with a low-directivity radiator. The radiator dimensions are assumed comparable with the wavelength and small in comparison with the reflector dimensions. The analysis takes into account diffraction correction for the radiator near field, curvature of the reflector and edge effect, discussed in Ref.3. The radiation of the reflector antenna in the shadow zone is determined by the screening effect of the finite metal reflector and depends little on the directivity of the antenna. It is defined 1) by the field of the radiator and the character of the radiating points on the reflector boundary; 2) by the distance from the stationary point of the reflector to the radiating point on the boundary and 3) by the presence of the edge effect at the sharp edge of the Card 1/2

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E140/E455

Radiation of a Reflector Antenna in the Shadow Zone

reflector. When the reflector boundary is intensely irradiated, the shadow zone field, calculated without considering diffraction current, can be made more exact by taking into account the edge effect. Regardless of the distribution of radiation from the primary radiator, at the reflector the back radiation can be changed only by several decibels in one direction or the other. The shape of the reflector boundary has an effect independent of the distribution of radiation at the reflector. The variation of the phase along the boundary can only decrease the observed field in the shadow zone by not more than half an order of magnitude. If the primary field at the reflector boundary is decreased to zero, it will only decrease the field in the shadow zone by an order of magnitude, and the near field of the primary radiator becomes decisive. This prevents further reduction of the shadow field by establishment of a zero of radiation from the primary radiator in the direction of the reflector boundary. There are 4 figures and 7 references: 6 Soviet and 1 English.

SUBMITTED: January 7, 1960

Card 2/2

VASIL'TSOV, V.D.; VOLCHENKO, M.Ya.; GERTSOVICH, G.B., kand.ekon. nauk;
ZHARKOV, Ye.I.; KOHOVALOV, Ye.A., kand. ekon. nauk; MATVIYEVSKAYA,
E.D.; OLEYNIK, I.P., kand. ekon. nauk; RAYEVSKAYA, E.S.,;
SKVORTSOVA, A.I.; SOKOLOVA, N.V.; SOTNIKOVA, I.A.; TANDIT, V.S.;
TRIGUBENKO, M.Ye.; FIRSOVA, Yu.V.; SHABUNINA, V.I.; YUMIL, M.N.;
STORozHEV, V.I., kand. istor. nauk, red.; LEFNIKOVA, Ye., red.;
SHIRNOV, G., tekhn. red.

[Economy of the people's democracies in figures for 1960] Ekono-
mika stran sotsialisticheskogo lageria v tsifrakh 1960 g. Pod
red. G.B.Gertsovicha, I.P.Oleinika, V.I.Storozheva. Moskva, izd-
vo sotsial'no-ekon. lit-ry, 1961. 238 p. (MIRA 15:4)
(Communist countries--Economic conditions)

TANDIT, W., kand. nauk ekon.

Common efforts as a guaranty for great development in chemistry.
Przegl techn 86 no.15:4 11 Ap '65.

L 45518-66 T-2/EWP(f) WW

ACC NR: AP6016917

(A)

SOURCE CODE: UR/0104/66/000/002/0005/0008

AUTHOR: Bukreyev, B. A. (Engineer); Tandler, M. M. (Engineer); Yakovlev, N. A. (Engineer); Uvarov, S. N. (Candidate of technical sciences); Uspenskiy, A. N. (Candidate of technical sciences) 56
B

ORG: none

TITLE: Electric generating stations with AI-20 gas turbines 21

SOURCE: Elektricheskiye stantsii, no. 2, 1966, 5-8

TOPIC TAGS: gas turbine, turboprop engine, electric power plant, power generating station / AI-20 gas turbine

ABSTRACT: In 1964, plans and blueprints were developed by the Giprolestrans Planning Institute of stationary, quick-assembled, and transportable AI-20 turboprop-engine-driven electric power plants. Such a 50-cps, 6.3-kv plant is to have a capacity of 1250, 1600, 2000, or 4000 kw. Sketches of the stationary and transportable plants are shown. Estimates show that such a plant will be economical if it is operated as a peak-load station, up to 3000-4000 hrs per year, and particularly if it uses a partly worn-out airplane engine. Orig. art. has: 4 figures and 1 table.

SUB CODE: 10, 094/ SUBM DATE: none / ORIG REF: 003

Card 1/1

UDC: 621.311.23

COUNTRY : GDR
CATEGORY : Zooparasitology.Parasitic Worms.General Problems G
ABS. JOUR. : RZhBiol., No. 4 1959, No. 14986
AUTHOR : Randon, R.S.
INST. :
TITLE : Life History of Gastrothylax crumenifer (Creplin, 1847)
ORIG. PUB. : Z. wiss. Zool., 1957, 160, No.1-2, 39-71
ABSTRACT : The life cycle of Gastrothylax crumenifer, a parasite of the rumen of ruminants, widespread in India, has been studied experimentally. Depending on the conditions of light and temperature, the development of the miracidium takes 8-9 days. The hatching of miracidia occurs in the morning and the duration of their free-swimming life is six hours. As an intermediate host serves the mollusc
CARD: 1/3

COUNTRY	:	
CATEGORY	:	G
ABS. JOUR.	:	RZhBiol., No. 1 1959, No. 14986
AUTHOR	:	
INST.	:	
TITLE	:	
ORIG. PUB.	:	
ABSTRACT cont'd	:	Gyraulus convexiusculus. The miracidia penetrate through the foot, head and mantle of the mollusc and in the mantle-cavity or in the mantle wall transform into the sporocysts inside which on the 11th day rediae are formed. The lifetime of a sporocyst is 25 days. There is only one generation of rediae. On the 21 st day cercariae develop within rediae, leaving them in an immature state and for a certain time parasitize in a mollusc liver. Their free life does not exceed 110 min.,
CARD:		2/3

COUNTRY :

CATEGORY :

ABS. JOUR. : RZhBiol., No. 4 1959, No. 14986

AUTHOR :

INST. :

TITLE :

ORIG. PUB. :

ABSTRACT : after which they encyst on the algae or aquarium
cont'd walls. Sexually-mature worms were obtained within
9 months following the feeding of metacercariae
to a young goat, Capra indica. The morphology of
all the stages of development of the parasite is
described in detail. Bibliography: 33 titles.
--T.A.Ginetsinskaya

CARD:

3/3

10

"APPROVED FOR RELEASE: 07/13/2001

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TANDORI, KAROL V

APPROVED FOR RELEASE: 07/13/2001

CIA-RDP86-00513R001754820015-8"

TANDORI, KAROLY

Tandori, Károly. Über die Cesàro'sche Summierbarkeit
der orthogonalen Polynomreihen. II. Acta Math Acad
Sci Hungar 5 217-231 1954

1 - P/5

Let $f(x)$ be a function defined on the interval $[a, b]$. We consider the Cesàro sum of the orthogonal polynomial series of $f(x)$. The main result of this paper is a theorem which states that if $f(x)$ is of bounded variation on $[a, b]$, then the Cesàro sum of the orthogonal polynomial series of $f(x)$ converges to $f(x)$ almost everywhere on $[a, b]$. This result is a generalization of a theorem of Hardy and Littlewood.

$$(*) \quad (n+1)^{-1} \sum_{k=0}^n s_k(f, x) - f(x) = o(1) \quad \text{as } n \rightarrow \infty$$

for all $x \in [a, b]$ where $f(x)$ is continuous. In particular, (*) holds for almost all $x \in [a, b]$ for which $f(x)$ is continuous.

Fourier series of $f(x)$. If $x \in [a, b]$ then (*) holds for the Fourier series of $f(x)$. This is a special case of the more general result stated above. There are some remarks on the case of the Fourier series of $f(x)$ in the paper.

Tandori, Károly Über die Konvergenz singularer Inte- 1 - F/W

$$\sum_{n=1}^{\infty} 2^{-n} \left(\int_0^1 |f_n(t)|^p dt \right)^{1/p} \quad (n=1, 2, \dots)$$

is bounded and $\lim_{n \rightarrow \infty} \int_0^1 |f_n(t)|^p dt = 1$ for every $0 < p \leq 1$.
Other necessary and sufficient conditions for (*) were given
by Tandori (Math. Sci. USSR, 1974, 19, 10, 1975, 19, 10, 1976, 20, 10, 1977, 21, 10, 1978, 22, 10, 1979, 23, 10, 1980, 24, 10, 1981, 25, 10, 1982, 26, 10, 1983, 27, 10, 1984, 28, 10, 1985, 29, 10, 1986, 30, 10, 1987, 31, 10, 1988, 32, 10, 1989, 33, 10, 1990, 34, 10, 1991, 35, 10, 1992, 36, 10, 1993, 37, 10, 1994, 38, 10, 1995, 39, 10, 1996, 40, 1997, 41, 10, 1998, 42, 10, 1999, 43, 10, 2000, 44, 10, 2001, 45, 10, 2002, 46, 10, 2003, 47, 10, 2004, 48, 10, 2005, 49, 10, 2006, 50, 10, 2007, 51, 10, 2008, 52, 10, 2009, 53, 10, 2010, 54, 10, 2011, 55, 10, 2012, 56, 10, 2013, 57, 10, 2014, 58, 10, 2015, 59, 10, 2016, 60, 10, 2017, 61, 10, 2018, 62, 10, 2019, 63, 10, 2020, 64, 10, 2021, 65, 10, 2022, 66, 10, 2023, 67, 10, 2024, 68, 10, 2025, 69, 10, 2026, 70, 10, 2027, 71, 10, 2028, 72, 10, 2029, 73, 10, 2030, 74, 10, 2031, 75, 10, 2032, 76, 10, 2033, 77, 10, 2034, 78, 10, 2035, 79, 10, 2036, 80, 10, 2037, 81, 10, 2038, 82, 10, 2039, 83, 10, 2040, 84, 10, 2041, 85, 10, 2042, 86, 10, 2043, 87, 10, 2044, 88, 10, 2045, 89, 10, 2046, 90, 10, 2047, 91, 10, 2048, 92, 10, 2049, 93, 10, 2050, 94, 10, 2051, 95, 10, 2052, 96, 10, 2053, 97, 10, 2054, 98, 10, 2055, 99, 10, 2056, 100, 10, 2057, 101, 10, 2058, 102, 10, 2059, 103, 10, 2060, 104, 10, 2061, 105, 10, 2062, 106, 10, 2063, 107, 10, 2064, 108, 10, 2065, 109, 10, 2066, 110, 10, 2067, 111, 10, 2068, 112, 10, 2069, 113, 10, 2070, 114, 10, 2071, 115, 10, 2072, 116, 10, 2073, 117, 10, 2074, 118, 10, 2075, 119, 10, 2076, 120, 10, 2077, 121, 10, 2078, 122, 10, 2079, 123, 10, 2080, 124, 10, 2081, 125, 10, 2082, 126, 10, 2083, 127, 10, 2084, 128, 10, 2085, 129, 10, 2086, 130, 10, 2087, 131, 10, 2088, 132, 10, 2089, 133, 10, 2090, 134, 10, 2091, 135, 10, 2092, 136, 10, 2093, 137, 10, 2094, 138, 10, 2095, 139, 10, 2096, 140, 10, 2097, 141, 10, 2098, 142, 10, 2099, 143, 10, 2100, 144, 10, 2101, 145, 10, 2102, 146, 10, 2103, 147, 10, 2104, 148, 10, 2105, 149, 10, 2106, 150, 10, 2107, 151, 10, 2108, 152, 10, 2109, 153, 10, 2110, 154, 10, 2111, 155, 10, 2112, 156, 10, 2113, 157, 10, 2114, 158, 10, 2115, 159, 10, 2116, 160, 10, 2117, 161, 10, 2118, 162, 10, 2119, 163, 10, 2120, 164, 10, 2121, 165, 10, 2122, 166, 10, 2123, 167, 10, 2124, 168, 10, 2125, 169, 10, 2126, 170, 10, 2127, 171, 10, 2128, 172, 10, 2129, 173, 10, 2130, 174, 10, 2131, 175, 10, 2132, 176, 10, 2133, 177, 10, 2134, 178, 10, 2135, 179, 10, 2136, 180, 10, 2137, 181, 10, 2138, 182, 10, 2139, 183, 10, 2140, 184, 10, 2141, 185, 10, 2142, 186, 10, 2143, 187, 10, 2144, 188, 10, 2145, 189, 10, 2146, 190, 10, 2147, 191, 10, 2148, 192, 10, 2149, 193, 10, 2150, 194, 10, 2151, 195, 10, 2152, 196, 10, 2153, 197, 10, 2154, 198, 10, 2155, 199, 10, 2156, 200, 10, 2157, 201, 10, 2158, 202, 10, 2159, 203, 10, 2160, 204, 10, 2161, 205, 10, 2162, 206, 10, 2163, 207, 10, 2164, 208, 10, 2165, 209, 10, 2166, 210, 10, 2167, 211, 10, 2168, 212, 10, 2169, 213, 10, 2170, 214, 10, 2171, 215, 10, 2172, 216, 10, 2173, 217, 10, 2174, 218, 10, 2175, 219, 10, 2176, 220, 10, 2177, 221, 10, 2178, 222, 10, 2179, 223, 10, 2180, 224, 10, 2181, 225, 10, 2182, 226, 10, 2183, 227, 10, 2184, 228, 10, 2185, 229, 10, 2186, 230, 10, 2187, 231, 10, 2188, 232, 10, 2189, 233, 10, 2190, 234, 10, 2191, 235, 10, 2192, 236, 10, 2193, 237, 10, 2194, 238, 10, 2195, 239, 10, 2196, 240, 10, 2197, 241, 10, 2198, 242, 10, 2199, 243, 10, 2200, 244, 10, 2201, 245, 10, 2202, 246, 10, 2203, 247, 10, 2204, 248, 10, 2205, 249, 10, 2206, 250, 10, 2207, 251, 10, 2208, 252, 10, 2209, 253, 10, 2210, 254, 10, 2211, 255, 10, 2212, 256, 10, 2213, 257, 10, 2214, 258, 10, 2215, 259, 10, 2216, 260, 10, 2217, 261, 10, 2218, 262, 10, 2219, 263, 10, 2220, 264, 10, 2221, 265, 10, 2222, 266, 10, 2223, 267, 10, 2224, 268, 10, 2225, 269, 10, 2226, 270, 10, 2227, 271, 10, 2228, 272, 10, 2229, 273, 10, 2230, 274, 10, 2231, 275, 10, 2232, 276, 10, 2233, 277, 10, 2234, 278, 10, 2235, 279, 10, 2236, 280, 10, 2237, 281, 10, 2238, 282, 10, 2239, 283, 10, 2240, 284, 10, 2241, 285, 10, 2242, 286, 10, 2243, 287, 10, 2244, 288, 10, 2245, 289, 10, 2246, 290, 10, 2247, 291, 10, 2248, 292, 10, 2249, 293, 10, 2250, 294, 10, 2251, 295, 10, 2252, 296, 10, 2253, 297, 10, 2254, 298, 10, 2255, 299, 10, 2256, 300, 10, 2257, 301, 10, 2258, 302, 10, 2259, 303, 10, 2260, 304, 10, 2261, 305, 10, 2262, 306, 10, 2263, 307, 10, 2264, 308, 10, 2265, 309, 10, 2266, 310, 10, 2267, 311, 10, 2268, 312, 10, 2269, 313, 10, 2270, 314, 10, 2271, 315, 10, 2272, 316, 10, 2273, 317, 10, 2274, 318, 10, 2275, 319, 10, 2276, 320, 10, 2277, 321, 10, 2278, 322, 10, 2279, 323, 10, 2280, 324, 10, 2281, 325, 10, 2282, 326, 10, 2283, 327, 10, 2284, 328, 10, 2285, 329, 10, 2286, 330, 10, 2287, 331, 10, 2288, 332, 10, 2289, 333, 10, 2290, 334, 10, 2291, 335, 10, 2292, 336, 10, 2293, 337, 10, 2294, 338, 10, 2295, 339, 10, 2296, 340, 10, 2297, 341, 10, 2298, 342, 10, 2299, 343, 10, 2300, 344, 10, 2301, 345, 10, 2302, 346, 10, 2303, 347, 10, 2304, 348, 10, 2305, 349, 10, 2306, 350, 10, 2307, 351, 10, 2308, 352, 10, 2309, 353, 10, 2310, 354, 10, 2311, 355, 10, 2312, 356, 10, 2313, 357, 10, 2314, 358, 10, 2315, 359, 10, 2316, 360, 10, 2317, 361, 10, 2318, 362, 10, 2319, 363, 10, 2320, 364, 10, 2321, 365, 10, 2322, 366, 10, 2323, 367, 10, 2324, 368, 10, 2325, 369, 10, 2326, 370, 10, 2327, 371, 10, 2328, 372, 10, 2329, 373, 10, 2330, 374, 10, 2331, 375, 10, 2332, 376, 10, 2333, 377, 10, 2334, 378, 10, 2335, 379, 10, 2336, 380, 10, 2337, 381, 10, 2338, 382, 10, 2339, 383, 10, 2340, 384, 10, 2341, 385, 10, 2342, 386, 10, 2343, 387, 10, 2344, 388, 10, 2345, 389, 10, 2346, 390, 10, 2347, 391, 10, 2348, 392, 10, 2349, 393, 10, 2350, 394, 10, 2351, 395, 10, 2352, 396, 10, 2353, 397, 10, 2354, 398, 10, 2355, 399, 10, 2356, 400, 10, 2357, 401, 10, 2358, 402, 10, 2359, 403, 10, 2360, 404, 10, 2361, 405, 10, 2362, 406, 10, 2363, 407, 10, 2364, 408, 10, 2365, 409, 10, 2366, 410, 10, 2367, 411, 10, 2368, 412, 10, 2369, 413, 10, 2370, 414, 10, 2371, 415, 10, 2372, 416, 10, 2373, 417, 10, 2374, 418, 10, 2375, 419, 10, 2376, 420, 10, 2377, 421, 10, 2378, 422, 10, 2379, 423, 10, 2380, 424, 10, 2381, 425, 10, 2382, 426, 10, 2383, 427, 10, 2384, 428, 10, 2385, 429, 10, 2386, 430, 10, 2387, 431, 10, 2388, 432, 10, 2389, 433, 10, 2390, 434, 10, 2391, 435, 10, 2392, 436, 10, 2393, 437, 10, 2394, 438, 10, 2395, 439, 10, 2396, 440, 10, 2397, 441, 10, 2398, 442, 10, 2399, 443, 10, 2400, 444, 10, 2401, 445, 10, 2402, 446, 10, 2403, 447, 10, 2404, 448, 10, 2405, 449, 10, 2406, 450, 10, 2407, 451, 10, 2408, 452, 10, 2409, 453, 10, 2410, 454, 10, 2411, 455, 10, 2412, 456, 10, 2413, 457, 10, 2414, 458, 10, 2415, 459, 10, 2416, 460, 10, 2417, 461, 10, 2418, 462, 10, 2419, 463, 10, 2420, 464, 10, 2421, 465, 10, 2422, 466, 10, 2423, 467, 10, 2424, 468, 10, 2425, 469, 10, 2426, 470, 10, 2427, 471, 10, 2428, 472, 10, 2429, 473, 10, 2430, 474, 10, 2431, 475, 10, 2432, 476, 10, 2433, 477, 10, 2434, 478, 10, 2435, 479, 10, 2436, 480, 10, 2437, 481, 10, 2438, 482, 10, 2439, 483, 10, 2440, 484, 10, 2441, 485, 10, 2442, 486, 10, 2443, 487, 10, 2444, 488, 10, 2445, 489, 10, 2446, 490, 10, 2447, 491, 10, 2448, 492, 10, 2449, 493, 10, 2450, 494, 10, 2451, 495, 10, 2452, 496, 10, 2453, 497, 10, 2454, 498, 10, 2455, 499, 10, 2456, 500, 10, 2457, 501, 10, 2458, 502, 10, 2459, 503, 10, 2460, 504, 10, 2461, 505, 10, 2462, 506, 10, 2463, 507, 10, 2464, 508, 10, 2465, 509, 10, 2466, 510, 10, 2467, 511, 10, 2468, 512, 10, 2469, 513, 10, 2470, 514, 10, 2471, 515, 10, 2472, 516, 10, 2473, 517, 10, 2474, 518, 10, 2475, 519, 10, 2476, 520, 10, 2477, 521, 10, 2478, 522, 10, 2479, 523, 10, 2480, 524, 10, 2481, 525, 10, 2482, 526, 10, 2483, 527, 10, 2484, 528, 10, 2485, 529, 10, 2486, 530, 10, 2487, 531, 10, 2488, 532, 10, 2489, 533, 10, 2490, 534, 10, 2491, 535, 10, 2492, 536, 10, 2493, 537, 10, 2494, 538, 10, 2495, 539, 10, 2496, 540, 10, 2497, 541, 10, 2498, 542, 10, 2499, 543, 10, 2500, 544, 10, 2501, 545, 10, 2502, 546, 10, 2503, 547, 10, 2504, 548, 10, 2505, 549, 10, 2506, 550, 10, 2507, 551, 10, 2508, 552, 10, 2509, 553, 10, 2510, 554, 10, 2511, 555, 10, 2512, 556, 10, 2513, 557, 10, 2514, 558, 10, 2515, 559, 10, 2516, 560, 10, 2517, 561, 10, 2518, 562, 10, 2519, 563, 10, 2520, 564, 10, 2521, 565, 10, 2522, 566, 10, 2523, 567, 10, 2524, 568, 10, 2525, 569, 10, 2526, 570, 10, 2527, 571, 10, 2528, 572, 10, 2529, 573, 10, 2530, 574, 10, 2531, 575, 10, 2532, 576, 10, 2533, 577, 10, 2534, 578, 10, 2535, 579, 10, 2536, 580, 10, 2537, 581, 10, 2538, 582, 10, 2539, 583, 10, 2540, 584, 10, 2541, 585, 10, 2542, 586, 10, 2543, 587, 10, 2544, 588, 10, 2545, 589, 10, 2546, 590, 10, 2547, 591, 10, 2548, 592, 10, 2549, 593, 10, 2550, 594, 10, 2551, 595, 10, 2552, 596, 10, 2553, 597, 10, 2554, 598, 10, 2555, 599, 10, 2556, 600, 10, 2557, 601, 10, 2558, 602, 10, 2559, 603, 10, 2560, 604, 10, 2561, 605, 10, 2562, 606, 10, 2563, 607, 10, 2564, 608, 10, 2565, 609, 10, 2566, 610, 10, 2567, 611, 10, 2568, 612, 10, 2569, 613, 10, 2570, 614, 10, 2571, 615, 10, 2572, 616, 10, 2573, 617, 10, 2574, 618, 10, 2575, 619, 10, 2576, 620, 10, 2577, 621, 10, 2578, 622, 10, 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756, 10, 2713, 757, 10, 2714, 758, 10, 2715, 759, 10, 2716, 760, 10, 2717, 761, 10, 2718, 762, 10, 2719, 763, 10, 2720, 764, 10, 2721, 765, 10, 2722, 766, 10, 2723, 767, 10, 2724, 768, 10, 2725, 769, 10, 2726, 770, 10, 2727, 771, 10, 2728, 772, 10, 2729, 773, 10, 2730, 774, 10, 2731, 775, 10, 2732, 776, 10, 2733, 777, 10, 2734, 778, 10, 2735, 779, 10, 2736, 780, 10, 2737, 781, 10, 2738, 782, 10, 2739, 783, 10, 2740, 784, 10, 2741, 785, 10, 2742, 786, 10, 2743, 787, 10, 2744, 788, 10, 2745, 789, 10, 2746, 790, 10, 2747, 791, 10, 2748, 792, 10, 2749, 793, 10, 2750, 794, 10, 2751, 795, 10, 2752, 796, 10, 2753, 797, 10, 2754, 798, 10, 2755, 799, 10, 2756, 800, 10, 2757, 801, 10, 2758, 802, 10, 2759, 803, 10, 2760, 804, 10, 2761, 805, 10, 2762, 806, 10, 2763, 807, 10, 2764, 808, 10, 2765, 809, 10, 2766, 810, 10, 2767, 811, 10, 2768, 812, 10, 2769, 813, 10, 2770, 814, 10, 2771, 815, 10, 2772, 816, 10, 2773, 817, 10, 2774, 818, 10, 2775, 819, 10, 2776, 820, 10, 2777, 821, 10, 2778, 822, 10, 2779, 823, 1

TANDORI, K.

Tandori, Károly. On the convergence of singular integrals

CONFIDENTIAL

Stockholm 13, 1984. Received by the Editor April 10, 1984.

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TANDORI, K.

TANDORI, K. - Kozlemenyei- Vol. 5, no. 1, 1955.

Public discussion of the dissertation by Geza Fodor, candidate in mathematics.
p. 81.

SO: Monthly list of East European Accessions, (EEAL), LC, Vol. 4, No. 9, Sept. 1955
Uncl.

TANDORI, KAROLY

$$\lim_{n \rightarrow \infty} \frac{1}{n} \sum_{j=1}^n V(x_{n,j}, t, x_0, r=0)$$

1/2

Seiden, Karoly

Re: author: A paper on the theory of the

summable H_2 at x_0

summable H_2 at x_0 ... series is

P Erdős

2/2

or NW

Tandori, Károly

Tandori, Károly. On orthogonal series. Magyar Tud. Akad. Mat. Fiz. Oszt. Közl. 5 (1955), 477-479. (Hungarian)

Let $\{\varphi_n(x)\}$ be orthonormal in $[a, b]$ and $\sum a_k^2 < \infty$. We assume that almost everywhere $(C, 1) - \sum a_k \varphi_k(x) = f(x)$; then, almost everywhere,

$$\lim_{n \rightarrow \infty} \sigma_n^{(\alpha)}(x) = 0$$

holds where $0 < \alpha < 1$ and

$$\sigma_n^{(\alpha)}(x) = [A_n^{(\alpha)}]^{-1} \sum_{k=0}^n A_{n-k}^{(\alpha-1)} [f(x) - s_k(x)]^2,$$

$$A_n^{(\alpha)} = \binom{n+\alpha}{n}, \quad s_n(x) = \sum_{k=0}^n a_k \varphi_k(x).$$

G. Szegő (Stanford, Calif.)

with $1 - \frac{1}{n}$

an

TANDORI, KAROLY

✓ Tandori, Karoly. Über orthogonale Formen.
Math. Z.

TANDORI, K.

Summation of orthogonal series.

p. 397 (Magyar Tudományos Akadémia. Matematikai és Fizikai Osztály. Közleményei.
Vol. 7, no. 3/4 1957. Budapest, Hungary).

Monthly Index of East European Accessions (MEAI) LC. Vol. 7, no. 2,
February 1958

Orthogonal Functions^{1/2}

Tandori, Károly. Über die orthogonalen Funktionen. I. 3
Acta Sci. Math. Szeged 18 (1957), 57-130.

D. Menchoff [Fund. Math. 4 (1923), 82-105] and H. Rademacher [Math. Ann. 87 (1922), 112-138] have shown that if $\{a_n\}_0^\infty$ is a real sequence for which $\{a_n \ln n\}_2^\infty \in l^2$ and if $\{\phi_n\}_0^\infty$ is an ONS for a finite interval I , then $\sum a_n \phi_n(x)$ converges a.e. on I . Menchoff showed further that this result is best possible in the sense that if $0 < W(n) = o(\ln n)$ and if I is a finite interval, then there exists a uniformly bounded ONS $\{\Phi_n\}_0^\infty$ for I and a real sequence $\{a_n\}_0^\infty$ such that $\{a_n W(n)\}_2^\infty \in l^2$ and $\sum a_n \Phi_n(x)$ diverges on I . Using an argument similar to that of Menchoff, the author of the paper here being reviewed proves that if $\{a_n\}_0^\infty$ is a positive, nonincreasing sequence of real numbers for which $\{a_n \ln n\}_2^\infty \in l^2$, and if I is a finite interval, then there exists a uniformly bounded ONS $\{\Phi_n\}_0^\infty$ for

I such that $\sum a_n \Phi_n(x)$ is everywhere divergent on I ; he shows also that this result includes Menchoff's theorem above.

If $\{\phi_n\}_0^\infty$ is an ONS for a finite interval I , and if $\{\mu_n\}_0^\infty$ is a positive, non-decreasing sequence of real numbers, then the Menchoff-Rademacher theorem above, in conjunction with a lemma of Kronecker, allows the author to deduce

Tandori, Károly

(1) if $\{1/\mu_n\}_n^\infty \in l^2$, then $\sum \phi_k^2(x) = o(\mu_n^2)$ for a.a. x in I and (2) if $\{\mu_n^{-1} \ln n\}_n^\infty \in l^2$, then $\sum \phi_k(x) = o(\mu_n)$ a.e. on I . These results improve known estimates of S. Kaczmarz [Studia Math. 1 (1929), 87-121] and Rademacher, respectively, and the author shows that they are best possible over the class of all ONS on I . He proceeds in the same vein to improve on some estimates of Kaczmarz for the Lebesgue functions for ordinary convergence and of I. S. Gál [Ann. Inst. Fourier, Grenoble 1 (1949), 53-59; MR 12, 405] and G. Alexits [Ann. Soc. Polon. Math. 25 (1952), 183-187; MR 14, 1081] for the Lebesgue functions for (C, α) , $\alpha > 0$, summability, showing in each case that his estimates are best possible in the class of all ONS on I .

A. E. Livingston (Seattle, Wash.).

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3/2

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John

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Remark on a theorem of A.N.Kolmogoroff. Acta math Szeged 22 no.1/2:
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Submitted March 23, 1960.

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"Frigyes Riesz's collected works." Reviewed by Karoly Tandori.
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Contribution to orthogonal functions. Pt.10. Acta math Szeged
23 no.3/4:185-221 '62.

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Submitted June 1, 1961.

TANDORI, Karoly (Szeged)

Contribution to the convergence of orthogonal series. Acta
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Model of Fourier's series of a quadratic integrable function
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Acta Hung mat Hung 15 no.1/2:165-173 '64

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TANDORI, Karoly (Szeged)

Contribution to the convergence of orthogonal series. Pt.2.
Acta math Szeged 25 no.3/4:219-232 '64.

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Submitted September 20, 1963.

TANDORI, Karoly (Szeged)

"Probability calculus with a supplement of information theory"
by Alfred Renyi. Reviewed by Karoly Tandori. Acta math Szeged
25 no.3/4:318 '64.

"Functions of real variables" by H.G.Garnir. Reviewed by Karoly
Tandori. Ibid.:319

1. Editorial Board Member, "Acta Scientiarum Mathematicarum."

TARTAKOVSKIY, L.B.; TANDUM, V.L.

Current distribution on the reflector of a mirror antenna.

Radiotekh. i elektron. 5 no.6:918-925 Je '60.

(MIRA 13:6)

(Antennas (Electronics))

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[Experience in setting fuel consumption norms for operations involved
in well drilling] Opyt pooperatsionnogo normirovaniia raskhoda topli-
va pri burenii skvazhin. Moskva, Gos.nauchno-tekhn. izd-vo lit-ry
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TANDURA, I. P.

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(DISSERTATION For the Degree of Candidate in TECHNICAL SCIENCE.)

Knizhnaya letopis'
No 33, 1956, Moscow

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Trudy Sib. avt.-dor. inst. no. 6:73-94 '57. (MIRA 12:2)
(Automobiles--Engines)

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1. Sibirskiy avtomobil'no-dorozhnyy institut.
(Motor vehicles--Cold weather operation)

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"Operating motor vehicles with carburetor engines under
low temperature conditions" by A.N. Pokrovskii, A.A. Bukin,
D.F. Gavrilov. Reviewed by I. Tandura, G. Eidel'son.
Avt.transp. 40 no.11:61-62 N '62. (MIRA 15:12)
(Motor vehicles—Cold weather operation)
(Pokrovskii, A.N.) (Bukin, A.A.) (Gavrilov, D.F.)

Mechanism of reactions in talc upon heating. A. I. AVGUSTINIK, P. Z. TANDURA, AND L. I. SVETSKOVA. *J. Applied Chem. (U.S.S.R.)*, 22 [11] 1150-50 (1949).—Natural talc and mixtures of coprecipitated Mg(OH)₂ and Si(OH)₄ were calcined at temperatures up to 1350°C. and then subjected to physicochemical, X-ray, and crystallo-optical tests. On the basis of the results obtained, a matrix network was constructed to explain the mechanism of the reactions. It is assumed that (a) a displacement or shift in the network can proceed more easily, above all, along lines corresponding to the basal planes in the actual lattice (where the Van der Waals forces act) and (b) a shift can proceed along lines corresponding to the separation of the actual planar lattice into chains of amphibole 6-member rings as well as into chains of pyroxene half-rings. The mechanism of reaction proceeds according to the following stages: (1) At temperatures up to 700°C., there is a shift and drawing together of the packets along a line corresponding to the basal plane, with a flattening of the monoclinic angle. The water molecules (about 0.4% of the total water in the talc), which are present between the packets, can be freed and expelled. The structure of the packets remains the same. (2) This stage takes place at 700° to 800°C.: It consists of an axial shift of the packets followed by rupture, with the formation of amphibole rings and a yield of about one-half the water of constitution. This stage corresponds to the formation in the talc of the first unstable phase or γ phase with n = 1.600 to 1.605. From the chemical viewpoint, this stage is characterized by increased leaching-out of Si⁴⁺ and Mg²⁺. (3) This stage occurs chiefly at 1000° to 1200°C. It consists of a rupture and shift of half of the amphibole rings and is accompanied by the yield of the second half of the water of constitution. It increases the fibrousness of the structure and the inner surface as evidenced by the maximum hygroscopicity of the talc calcined at these temperatures and by the halt in the shrinkage at 1200° to 1250°C. This stage corresponds to the formation in the talc of the second unstable phase or δ phase with n = 1.618 and is accompanied by the change of amorphous silica into cristobalite and the noticeable appearance of glass. (4) This stage occurs at 1250° to 1350°C. and consists of a possibly reversible shift of chains from the pyroxene half-rings so as to produce a strong drawing together of the elements of the structure (strong shrink age of talc). This corresponds to the structure of clinostatite or α phase with a somewhat incompletely lattice. The incompleteness of the structure is determined by the absence of the lines 4.31 and 2.10 on the X-ray diagram of talc fired at 1350°C.; these lines are present in the case of clinostatite. These stages cannot be fixed by any constant temperature points of transformation; they are superimposed one on another so that the factors of time and temperature overlap within wide limits. The suggested method can be used widely in the chemistry of silicates B.Z.K.

TANDUYEVA, F. K.

Tanduyeva, F. K.

"Changes in the maximum working capacity of the cells of the cerebral cortex depending on the amount of unconditioned reinforcement." Inst of Normal and Pathological Physiology. Acad Med Sci USSR. Moscow, 1956. (Dissertation for the Degree of Candidate in Medical Science)

So: Knizhnaya letopis', No. 25, 1956

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(CEREBRAL CORTEX)

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TANDYKIN, K.M.

658. OPERATING TESTS ON STEAM/WATER JETS ON FURNACE HEATING SURFACES.
Lokshin, V.A. and Tandykin, K.M. (Izvest. Ste. (For Ste., Moscow), Dec.
1953, vol. 24, 16-20). As the results of damage caused by the impingement
of steam/water jets on to heads of boiler tubes a practical investigation
was carried out on a high pressure boiler with a steam output of 180 tons/h.
The tests showed that when steam/water cleaning of tubes is correctly
applied no tube damage need occur. B.S.A.

TANE, Tina; RUGENDORFF, B.W.; MIRALLA, V.

Method of early diagnosis of urinary lithiasis. Stud. cercet. med.
intern. 5 no.3:319-326 '64.

TANEA, E.

CUNESCU, V., Dr.; IDU, S., dr.; TANEA, E., dr.; THEODORESCU, B., Prof.

Electrophoresis in endocarditis lenta. Med. int., Bucur. 7 no.4:
143-147 Oct-Dec 55.

1. Clinica medicala IPSMF, Spitalul Coltea-Bucuresti.
(ENDOCARDITIS, SUBACUTE BACTERIAL, blood in
protein determ., electrophoresis, diag. value)

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EXCERPTA MEDICA Sec 17 Vol 5/6 Public Health June 59

1601. AN EPIDEMIC OF BENIGN SEROUS MENINGITIS - Über eine Epidemie gutartiger Meningitis serosa - Taneff I. and Haitoff A. Klin. für Infekt.-Krankh., Med. Fak., Sofia - NEUE ÖST. Z. KINDERHEILK. 1957, 2/4 (281-290) Graphs 3 Tables 1

In the summer months of 1954, an epidemic of benign serous meningitis occurred in Sofia. Ninety cases were admitted to hospital; the majority, however, were treated at home. The clinical picture was dominated by the meningeal symptom complex. The CSF showed a moderate increase of globulins and pleiocytosis up to 1,000 cells per cu.mm. Only a few patients in the first days of the disease showed polynuclear pleiocytosis; all others lymphocytary pleiocytosis. All patients recovered fully. In animal experiments, transmission to mice succeeded in 62% of the inoculations. Isolation and identification of the causative agent proved impossible.

Chytka - Brno (L. 7, 8, 17)

TANENBAUM, I.M.; KALYUZHNYAYA, T.P., red.; MAZEL', Ye.I., tekhn. red.

[Principles of radiation measurement in mines] Osnovy rudnich-
noi radiometrii. Moskva, Gos. izd-vo lit-ry v oblasti atomnoi
nauki i tekhn., 1961. 143 p. (MIRA 15:2)
(Radiation—Measurement) (Mining engineering)

TANENBAUM, L.I.; GALSTYAN, N.O.

Rapid methods in the remodeling of rotating furnaces. TSvet.net.
28 no.2:33-46 Mr-Apr '55. (MIRA 10:10)

1. Glavnyy mekhanik Volkhovskogo alyuminiyevogo zavoda (for
Tanenbaum). 2. Glavnyy inzh. tresta Stroymontazh (for Galstyan).
(Metallurgical furnaces)

TAMENGOLO'TS, Lev Yakovlevich; OKUNEV, Yu.K., podpolkovnik, red.;
ZUDINA, M.P., tekhn.red.

[Troubles in electric equipment of automobiles; detection
and correction] Neispravnosti v elektrooborudovanii avto-
mobilei; obnaruzhenie i ustranenie. Moskva, Voen.izd-vo
M-va obor.SSSR, 1960. 155 p. (MIRA 13:5)
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TANENYA, L., brigadir

Combining of trades in an integrated brigade. Na stroi. Ros.
no.7:18 J1 '61. (MIRA 14:8)

1. Kompleksnaya brigada otdelochnikov UNR-749 tresta Khabarovskstroy.
(Khabarovsk--Finishes and finishing)

PHASE I BOOK EXPLOITATION 474

Kartsev, M.A., Aleksandridi, T.M., Knyazev, V.D., Tanetov, G.I.,
Legezo, L.S., Lavrenyuk, Yu.A., Shchurov, A.I., Brusentsov, N.P.,
Kuznetzova, V.P.

Bystrodeystvuyushchaya vychislitel'naya mashina M-2 (High-speed
Computer M-2) Moscow, Gostekhizdat, 1957. 228 p. 10,000 copies
printed.

Ed. (title page): Bruk, Isaak Semenovich, Corresponding Member,
USSR Academy of Sciences; Ed. (inside book): Bezborodov, Yu. M.;
Tech. Ed.: Gavrilov, S.S.

PURPOSE: The book is written for engineers and students of vuzes,
specializing in computer techniques, and for specialists interested
in computer applications.

COVERAGE: The book describes the M-2, a small-dimensioned, universal,
high-speed digital computer developed by the Laboratory of Control
Machines and Systems of the Academy of Sciences, USSR. A detailed
description is given of the basic computer units: the arithmetic
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High-speed Computer M-2

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unit, internal memory devices, control devices and output devices. This description is supplemented with an exposition of the guiding principles of computer design, the binary system, coding and programming, and the design of basic components of the system. This makes the book accessible to readers who have no special training in electronic computers. The basic characteristics of the computer are as follows: the calculation system is binary; the code presentation is with a floating and fixed binary point; the number of binary digits is 34; the computation accuracy, with a floating binary point, is about eight decimal bits, and with a fixed binary point, about ten decimal bits (computations with doubled accuracy are also possible); the range of numbers in operations with a floating binary point is from 2^{31} to 2^{-32} ; the coding system is a three-address code; operations performed are: addition, subtraction, multiplication, division, congruence with modulus, algebraic congruence, logical (signed) multiplication, sign inversion, transfer of numbers, and auxiliary operations (30 in all); the average speed of operation is

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High-speed Computer M-2

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2000 operations per second. Of the internal memory devices the basic one is electrostatic, consisting of cathode-ray tubes of the 13L037 type, for 512 numbers; the access time is 25 μ sec; the auxiliary consists of a magnetic drum for 512 numbers; the speed of rotation is 2860 rpm. The external memory device consists of a magnetic tape with a capacity of 50,000 numbers; its length is 600 m and speed 0.4 m/sec. The data is fed in on perforated paper tape at the rate of about 30 numbers per sec. The decoding of data is in tabular form, the printing speed is 24 numbers per min. The power supply is from a 3-phase a-c metwprl 127/220-v, the power intake is 29 kw. The area covered by the computer is 22 sq. m. The total number of tubes is 1879, of which 1676 are used in the computer itself and 203 in the power supply. The types and numbers of tubes used in every unit are given in Appendix 2. The personnel consists of two people per shift. The cost of building the computer was about one million rubles, and the cost of 24-hr operation is 16,000 to 18,000 rubles per month. The various stages of development of the M-2 involved

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the following engineers: M.A. Kartsev, V.V. Belinskiy and A.B. Zalkind, who developed the arithmetic unit; the electrostatic memory device was developed by T.M. Aleksandridi and Yu.A. Lavrenyuk; control devices by L.S. Legezo, V.D. Knyazev and G.I. Tanetov; magnetic memory devices by A.I. Shchurov and L.S. Legezo; input and output devices by A.B. Zalkind; the power supply system by V.V. Belynskiy, Y.A. Lavrenyuk and V.D. Knyazev; the control panel by V.V. Belynskiy and A.I. Shchurov. The design work was supervised by M.A. Kartsev. The following laboratory constructors, technicians, mechanics and assemblymen also worked on the project: I.Z. Gel'fgat, A.D. Grechushkin, N.A. Nemtsev, F.F. Rzhetskiy, I.K. Shvil'pe, D.U. Yermochenkoy, L.I. Fedorov, and G.I. Korostylev. The following persons collaborated in the writing of the book: M.A. Kartsev (Chapters I to VI and XI), I.M. Aleksandridi (Chapter VII), V.D. Knyazev (Chapters II, III, VII and IX), V.P. Kuznetsova (Chapter XII), Yu. A. Lavrenyuk (Chapters V and VII), G.I. Tanetov (Chapters VI, IX and XIII), A.I. Shchurov (Chapter VIII), N.P. Brusentsov (Chapters VIII, IX, XIV) and L.S. Legezo (Chapter X).

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There are no references.

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Appendix 5. Time-segmental diagrams explaining the performance of operations with numbers

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AUTHORS: Avaliani, Yu. Ye., Alekseyev, Yu. N., Glukhoy, Yu. N., Dorokhova, N. A.,
Tanetov, G. I.

TITLE: The arithmetic equipment of a specialized machine.

SOURCE: Akademiya nauk SSSR. Institut elektronnykh upravlyayushchikh mashin.
Tsifrovaya tekhnika i vychislitel'nyye ustroystva. no. 3. 1962, 14-23.

TEXT: The paper describes an arithmetic equipment (AE) of the parallel type, which operates with 22-digit binary numbers with a fixed decimal point and which performs addition, subtraction, multiplication, division, extraction of the square root, matching, shifting, and transposition of numbers. An acceleration in the multiplicative operations is achieved by the accumulation of the partial products without transitional carry-overs. The system of the elements and the design principles of the AE are briefly examined. The system of elements comprises a static trigger, a potential-impulse gate, and logic diode circuits. All of the elements are made up of semiconductor devices. The network of the AE is presented in skeletal form, which comprises the various equipments that serve to perform the elementary operations in each register, and the equipments that receive numbers from other partial parts of the machine. The operational algorithms of addition, subtraction,

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The arithmetic equipment of a specialized machine. S/779/62/000/003/002/008

and division, and the technical methods in the design of the logical circuits which help to realize the algorithms, are similar to those employed in some existing computers, for example, the M-2. Thus, for example, the adding equipment of the AE differs in its logic structure from that employed in the M-2 machine only by the content of cyclic carry-over circuit from the higher digit to the lower digit. While the operation of algebraic matching exhibits certain peculiarities dependent on the character of the problems to be solved, there is nothing interesting from the point of view of engineering. In this operation, the same circuits as those utilized in addition and subtraction are employed. The operation of shifting is also of no additional interest, since it employs the same shifting circuitry employed in multiplication and division. In the multiplication the partial products remain immobile, whereas the multiplicand is shifted to the right. It can be shown that to obtain, in such procedure, an accuracy of no less than a unit of the lowest digit for 22-digit initial figures, it is necessary to have 3 additional digits in the AE prior to rounding off. Extraction of the square root follows almost precisely the same method as that employed in high-school long-hand work, that is, with division of the number into pairs of digits, extraction of the square root of the highest digital pair, and all the other subsequent steps required by the 2-rectangles-cum-small-square method, until the remainder is either zero or smaller than the required accuracy residual. The duration of the extraction of the square root amounts to 112 cadences or 317 μ sec.

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If the number of which the square root is to be obtained has a minus sign, then all the digits go to zero, and the operation comes to a halt. The description of the AE elements comprises the static trigger, the logical diode scheme, and the potential impulse gate, schematic circuits for all of which are shown. A block diagram is shown for a basic (k-th) digit of the AE. The AE described contains approximately 1,000 semiconductor triodes and 4,000 semiconductor diodes, all of which operate in regimes in which current intensities, voltages, and powers do not exceed the rated values. A special cooling system ensures maintenance of all semiconductor devices at room temperature. The circuits employed ensure maintenance of a stable operation of the AE under power-supply-voltage fluctuations of $\pm 10\%$ from nominal values. The electrical power supply of the AE is provided by a 400-cps rotary generator through rectifiers assembled in a 6-phase circuit. The total power requirements of the AE is approximately 0.8 kw. The AE is currently in experimental operation. There are 5 figures and 3 references (2 Russian-language Soviet and the English-language A.A. Robinson, Multiplication in the Manchester University high-speed digital computer. Electronic Engrg., v.25, no.299, 1953).

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